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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,624	02/20/2004	Katsuya Kase	8009.0010	4112

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EXAMINER	
ONEILL, KARIE AMBER	

ART UNIT	PAPER NUMBER
1795	

MAIL DATE	DELIVERY MODE
12/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/781,624	Applicant(s) KASE ET AL.	
	Examiner Karie O'Neill	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 26, 2007, has been entered.
2. Claims 1-3 have been amended. Therefore, Claims 1-3 are pending in this office action.

Declaration under 37 C.F.R. §1.132

3. The Declaration under 37 C.F.R. §1.132 was received September 26, 2007, and was considered by the Examiner.

Claim Rejections - 35 USC § 102/103

4. Claims 1-3 are rejected under 35 U.S.C. 102 (b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over Inoue et al. (JP 2000-021402).

Inoue et al. disclose a nonaqueous electrolyte rechargeable secondary battery including an active material for a positive electrode, together with a negative electrode, a separator and a lithium salt containing nonaqueous electrolyte, and containing a sulfate radical preferably formed of an inorganic or organic sulfate of 0.01 to 5 weight %

to the positive electrode material (see abstract). Inoue et al. disclose in paragraph 0021, a general formula for the positive active material: $\text{Li}_x\text{Ni}_y\text{Co}_{1-y-z}\text{M}_z\text{O}_2$, where M is at least one metal selected from Al, Mn, Ti, Fe, and Zn, and $0.1 \leq x \leq 1.05$, $0 \leq y \leq 0.9$ and $0 \leq z \leq 0.2$. Inoue et al. also discloses mixing the raw materials of the active material at high temperatures so as to affect the lattice parameters and crystalline structure of the positive active material, which then affect the occupancy rate of lithium and the weight % of carbon present in the active material. Inoue et al. does not disclose wherein the occupancy rate of lithium found from the x-ray diffraction chart and using Rietveld analysis is 98% or greater and the carbon amount measured by way of the high frequency heating-infrared absorption method being 0.12 wt% or less. However, it is the position of the examiner that properties of said active material for a positive electrode of a nonaqueous electrolyte secondary battery, such as the occupancy rate of lithium found from the X-ray diffraction chart and using Rietveld analysis being 98% or greater, the carbon amount measured by way of the high frequency heating-infrared absorption method being 0.12 wt% or less, and a Karl Fischer moisture content of 0.2 wt% or less when heated to 180°C, are inherent, given that the active material for a positive electrode disclosed by Inoue et al. and the instant application are the same and therefore have the same properties. A reference that is silent about a claimed invention's features is inherently anticipatory if the missing feature is necessarily present in that which is described in the reference. Inherency is not established by probabilities or possibilities. See MPEP 2112.

Response to Arguments

5. Applicant's Declaration under 37 C.F.R. §1.132, filed September 26, 2007, has been fully considered but is not persuasive.

a. Applicant has provided an opinion as to why the Inoue (JP 2000-021402) reference does not teach a lithium composite oxide that inherently possesses a lithium occupancy of rate of 98% or more, or a carbon amount of 0.12% or less, but has not provided information or support for where the provided data is found within the Inoue reference. If the data is taught in the reference, the applicant must disclose where it is found.

b. The provided data is not commensurate in scope with the claimed invention. In the instant application, the SO_4 ions are present in an amount ranging from 0.4 weight % to 2.5 weight %. Applicant has only provided data for and discussed three embodiments, the values of SO_4 ions present being 0.5 weight %, 0.8 weight % and 1.2 weight %. The data should include more of a range, preferably data including the end points of 0.4 weight % and 2.5 weight %, as well as data points within the range to provide a more rounded set of results.

6. Applicant's arguments filed September 26, 2007, with regard to the rejections under 35 U.S.C. §102/103, have been fully considered but they are not persuasive.

a. With regard to the 35 U.S.C. §102 rejection, Applicant asserts that Examiner has not provided reason why mere similarity in the compositions of Inoue and the claimed invention necessarily means that Inoue possesses the claimed lithium site

occupancy rate and/or carbon content. Examiner asserts that in the Inoue reference, the lithium ion battery comprises a sulfate radical preferably formed of an inorganic or organic sulfate in the claimed range of 0.4 weight % to 2.5 weight %, to the positive electrode material (see abstract). Inoue also discloses that lithium is present in the lithium-metal composite oxide with of a ratio of $0.1 \leq x \leq 1.05$ and each of the examples of lithium oxides in the Inoue reference (paragraphs 21-23) disclose lithium with a stoichiometry of 1, concluding that the occupancy rate of lithium present would be 100%, which is more than the claimed 98% or greater. It would have also been obvious to one of ordinary skill in the art to make an active material, consisting essentially of lithium-metal composite oxide, with a carbon content of 0.12 weight% or less, because is known in the art to remove as much, if not all, of the carbon present in the composite oxide in order to make the composite oxide as pure and dry as possible.

b. With regard to the 35 U.S.C. §103 rejection, Applicant asserts that Examiner has merely asserted that one of ordinary skill in the art could modify Inoue's composition, but has provided no objective reason as to why they would do so. For a rejection under 35 U.S.C §102/103 based on inherency, MPEP 2112 states, "once the examiner provides a rationale tending to show the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to the applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. The PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his or her claimed product. Whether the rejection is based on

inherency under 35 U.S.C. 102, or prima facie obviousness under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same...".

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karie O'Neill whose telephone number is (571) 272-8614. The examiner can normally be reached on Monday through Friday from 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Karie O'Neill
Examiner

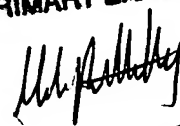
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KAO

MARK RUTHKOSKY
PRIMARY EXAMINER



12.10.07